PRIME TANNING COMPANY	**)**	**DEPARTMENTAL**
YORK COUNTY	**)**	**FINDINGS OF FACT AND ORDER**
BERWICK, MAINE	**)**	**AIR EMISSION LICENSE**
A-376-70-C-A	**)**	**AMENDMENT #2**

After review of the Part 70 License amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A, Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Prime Tanning Company (Prime)
LICENSE NUMBER	A-376-70-C-A
LICENSE TYPE	Part 70 License Amendment
NAICS CODE	31611-Leather Tanneries
NATURE OF BUSINESS	Leather Tanning and Finishing
FACILITY LOCATION	Sullivan Street, Berwick
DATE OF INITIAL LICENSE ISSUANCE	April 26, 2000
DATE OF AMENDMENT ISSUANCE	August 7, 2002
LICENSE EXPIRATION DATE	April 26, 2005

B. Revision Description

Prime has requested to consolidate its leather finishing equipment from their Rochester, NH plant to Prime's Berwick plant. The application is for the replacement of finishing equipment, including roll coaters and spray lines. Prime has proposed a "one to one" replacement of older Berwick equipment with newer, more efficient equipment from the Rochester plant.

C. Application Classification

The modification of a major source is considered a major modification based on whether or not expected emission increases exceed the "Significant Emission Increase Levels" as given in Maine's Air Regulations.

VOC is the only criteria pollutant that will change as a result of the proposed replacement of the leather finishing equipment, therefore, only VOC emissions is evaluated for net change. The emission increases are determined by subtracting the average actual emissions of two "representative" calendar years preceding the modification from the maximum future license allowed emissions, as follows:

Pollutant	**94/95 Ave. Actual (TPY)**	**Future License (TPY)**	**Net Change (TPY)**	**Sig. Level**
VOC	290	290	0	40

Therefore, based on the above table, this application is being processed as a minor modification of a Part 70 source, under the requirements of Section 5 (B) of Chapter 140 of the Department's regulations for a Part 70 source. The application does not involve a relaxation or change in monitoring, testing, reporting or recordkeeping requirements. The modification addresses new equipment at a major source and therefore a BACT analysis is required.

D. NSR Applicability Determination

Prime has requested to consolidate finishing equipment, including roll coaters and spray lines, from their Rochester plant to the Berwick plant. The application reflects a "one to one" replacement of older Berwick equipment with newer, more efficient equipment from the Rochester plant. In doing so, Federal New Source Review (NSR) is triggered since the rules recognize this as "new" equipment for Berwick. NSR would require Lowest Achievable Emission Rate (LAER) and VOC offsets, if the modification was considered major for VOCs. BACT will be applicable for a minor modification determination. If the modification increased VOC emissions greater than 40 tpy above actual emissions, the modification would be considered major - if under 40 tpy the modification is considered minor.

Federal NSR rules require the Department to look at average actual emissions for the last two years vs. future license allowed. Actual emissions are defined per Chapter 100 as "the actual rate of emissions of a pollutant in tons per year as of a particular date. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period. For the purpose of determining whether a net emissions increase has occurred, the Department shall use the two (2) year period which precedes the application and which is representative of normal operation. The Department may allow the use of a different period upon a

determination that it is more representative of normal operation". The average actual emissions from Prime are 290 tons per year based on 1994 and 1995.

The years of 2000 and 2001 are not representative due to the closings of various leather operations. The years of 1996 – 1999 are not representative due to the facility in Rochester and the plant in China opening. These plants substantially reduced the overall leather finishing at Berwick. Prime has proposed the time frame of 1994 and 1995 as representative of normal operation of actual emissions for the determination of whether a net emissions increase has occurred. These are the last two years when all finishing operations were consolidated at Berwick and prior to the Rochester facility being built. Prime emitted 349 tons in 1994 and 231 tons in 1995 for an average of 290 tons. These years represent VOC reductions after VOC RACT was in place, mainly from VOC formulation control (reduced from 836 tons in 1993 and 1133 tons in 1992).

Using the years of 1994 and 1995 as a baseline will give sufficient flexibility to support Prime's customer base, along with the U.S. military business. At the same time it will represent a 190-ton license reduction from the existing licensed allowed emissions of 480 tpy.

II. AMENDMENT DESCRIPTION

New Equipment Description

Several new developments have occurred within the last year concerning Prime Tanning's leather processing facility in Berwick. Prime had planned to shut down all U.S. production last fall, however, Prime recommenced operations at a lower production level after the U.S. military's request for domestic leather. Prime had previously colored and finished leathers at levels of up to 10,000 sides per day in Berwick, however, after reopening this year production levels are around 2000 to 3000 sides per day.

The application for Prime Tanning involves the replacement of several leather finishing operations. Prime's intention is to consolidate the equipment from their Rochester plant to the Berwick facility. From a licensing perspective, all the equipment included on this license modification is the same type as that of the existing air license; with no new process lines being introduced and no new chemicals being used. During the equipment transition phase, Prime plans to maintain production capabilities by installing the new equipment in Berwick before removing the corresponding Berwick piece of equipment. There will be no

instance in which two pieces of equipment performing the same process would operate at the same time.

Spray Lines
Most of the existing spray lines at Berwick will be replaced with newer spray lines of similar design and function from the Rochester facility. The new lines will have a spray economizer computer and utilize HVLP technology guns to reduce material use and VOC emissions. The relocated booths have some additional features to further minimize the emissions. They have a wet scrubber overspray collection system which performs at 90% efficiency vs. the current 85% from the dry collection pads. These booths are also designed to reduce the amount of material available for capture by taking steps to improve the transfer efficiency and re-cycling the finish material in the fluid lines. The existing spray lines will continue to use dry filter pads.

Roll Coaters
Roll Coaters are a form of direct application technology for leather finishing. Direct application has the advantage of near 100% transfer efficiency thereby reducing emissions. The machine uses a knurled roll to deposit finish on leather. Heavier finish applications with lower emissions are possible with this technology along with the potential to increase the range of available application rates. The newer models also have the option of a spreading device, which reduces the potential for the softer leathers to fold over while feeding into the machine. Whole hide machine, side machines with forward and reverse options, multiple roll options for different application requirements, and spreading feed roll options, are all included in Prime's various roll coating leather-finishing operations.

Season Oil
Season Oil machine is a direct application technology. It uses a brush roll to apply finish to leather. This machine has the capacity to pre-heat both the leather and the finish to allow waxes and oils to be applied without the use of solvents (VOCs). The application device is not vented but the dryer and the pre-heater are vented externally. The pre-heater has propane fired, tube-type burners. This machine can process up to 10,000 square feet per hour with a maximum finish formula consumption of 15 gallons per hour.

Dubois Machine
Another type of direct application machine. This machine uses a rubber roll to apply finish to leather. "Design" patterns can also be done to leather with this machine.

Buffing
The Buffing operation involves the use of sandpaper to buff the leather to a suede-like feel and appearance. This operation produces dust which is filtered through an external baghouse to remove particulates. The dust is then pressed and subsequently disposed of. One of the Buffing machines has a pre-heater device, to warm certain leathers for higher quality results from buffing.

Hand Spray
Hand spray is used for finishing small lots for research and development or for sample leathers. The operation is performed by hanging single sides, or smaller pieces, in a booth and finishing them with a hand-held HVLP spray gun. The coatings are the same as those applied on the production spray equipment. The hand spraying operation consists of four booths which will exhaust through one common stack. Each booth is equipped with high efficiency dry filter pads with an 85% particulate collection efficiency.

R&D Dryer
A small dryer to dry the finish on R&D or sample leather sides or pieces. This is a steam dryer with no exhaust stack, control device or associated material consumption.

Process Emission Equipment

The following table updates the leather finishing equipment after the modification takes place at the Berwick facility:

Equipment/Operation	**Pollution Control Equipment**	**Licensing status**
Whole Hide Spray Line #1	HVLP spray guns, computerized spray economizer, wet scrubber	Relocated
Whole Hide Spray Line #2	HVLP spray guns, computerized spray economizer, wet scrubber	Relocated
Side Spray Line #1	HVLP spray guns, computerized spray economizer, wet scrubber	Relocated
Side Spray Line #2	HVLP spray guns, computerized spray economizer, wet scrubber	Relocated
Whole Hide Roll Coater w/dryer	None	Existing
Side Roll Coater #1 w/dryer and pre-heater	None	Relocated
Side Roll Coater #2 w/dryer	None	Existing
Season Oil Line with pre-heater	None	Relocated

Side Swab Line (Tandem)	None	Existing
Side Dubois Machine #1	None	Existing
Side Dubois Machine #2	None	Relocated
Buffing #1	baghouse	Relocated
Buffing #2	baghouse	Relocated
Hand Spraying #1,#2,#3,#4	Dry filter collection pads	Relocated
R&D dryer	None	Relocated
Tumbling *	baghouse	Existing
Lime Silo	baghouse	Existing
Silicone Line **	none	Removed

* There are ten production tumblers and two sample tumblers that vent through a baghouse and discharge inside the facility.

** The silicone line will be taken out of service after the consolidation of equipment at Berwick

BACT Analysis

The BACT analysis includes evaluating any new pollutant control technologies available for new spray lines and roll coaters in the leather industry. It was found that very few new technologies exist for reducing emissions from this type of equipment. Most of the existing spray lines will be replaced with newer spray lines of similar design and function. The new lines will have a spray economizer computer and will use HVLP technology guns to reduce material use and VOC emissions. The new spray lines will also have wet scrubber overspray collection systems with higher particulate reducing efficiency than the existing spray machines.

One improvement in roll coater technology is the use of heated finish material containers and heated application rolls. This allows, in some products, the use of heat to get certain finish materials into the leather rather than using solvents. The roll coaters, Prime plans to install, can run both in the forward mode (synchro) and reverse modes, which increases the range of application rates available. The newer models also have the option of a spreading device, which reduces the potential for the softer leathers to fold over while feeding into the machine. Roll-coating technology is generally viewed as a control technology alternative to spray operations.

To meet the requirements of BACT, Prime shall meet the following:

- An annual (12-month rolling average) VOC limit of 14 lb/1000ft^2 of leather produced with an additional 24 lb/1000 ft^2 if the leather is a waterproof leather. The monthly VOC limit is 38 lb/1000 ft^2.
- Equipment must use HVLP spray guns and spray control computer with electric eyes to minimize finish use and overspray.
- Prime must continue to maintain standard operating and maintenance procedures (SOMP) to minimize VOC emissions.

Prime's proposed modification is for coater replacements and not for additional equipment. The Rochester equipment is more efficient and emits less on a lb of VOC per square foot of leather basis than the equipment that is being replaced at Berwick. With the newer equipment "actual emissions" would be less with the same amount of leather processed. Also, the total licensed allowed VOC emissions from Prime Tanning is reduced from 480 tons per year to 290 tons per year, based on a 12-month rolling total.

III. Maximum Achievable Control Technology (MACT) update

Prime was issued Part 70 Air Emission License, A-376-70-A-I, on April 26, 2000. Since that time, a final "National Emission Standards for Hazardous Air Pollutants (NESHAP) for Leather Finishing Operations" was adopted on February 27, 2002. Prime is considered an existing source under this rule and is subject to the applicable sections. Condition (3) in the Order Section of this air emission license amendment addresses the major emission limits, recordkeeping, and reporting requirements.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

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The Department hereby grants Air Emission License A-376-70-C-A subject to the conditions found in Air Emission License A-376-70-A-I, in amendments A-376-70-B-M, and in the following conditions:

The following condition replaces Condition (29) c. in air emission license A-376-70-A-I:

(29) c. The total VOC emissions from the Prime Tanning facility shall not exceed 290 tons of VOC per year on a 12-month rolling total basis, where:
   i. the first 12 months shall start on August 1, 2002; and
   ii. the tons of VOC emissions are documented by purchase records, which shall include the VOC content of all materials purchased. VOC emissions from the boilers are also included in this total.

The following conditions are in addition to the existing conditions of Air Emission License A-376-70-A-I.

(1) Prime can proceed with the consolidation of spray lines and roll coaters as outlined in the Finding of Fact section of this air emission license amendment. The new spray lines shall operate with HVLP spray guns, spray control computer with electronic eyes, and wet exhaust scrubber systems for each relocated spray booth. Prime shall develop a maintenance procedure for proper operation of the wet overspray control system. [MEDEP Chapter 140, BPT]

(2) Prime shall keep chemical usage records to demonstrate compliance with all applicable emission limits as specified in their current air emission license A-376-70-A-I. All short-term emission limits remain unchanged from the existing air emission license. [MEDEP Chapter 140, BPT]

(3) Prime shall meet the following applicable requirements per the National Emission Standards for Hazardous Air Pollutants for Leather Finishing Operations: [40 CFR Part 63, Subpart TTTT]

A. Prime shall be in compliance with the requirements of 40 CFR Part 63 Subpart TTTT by **February 28, 2005**.

B. Prime shall be in compliance with the HAP emission limit shown in the following table at all times, including periods of startup, shutdown and malfunction.

HAP Emission Limit Table

Type of Leather Process Operation	HAP Emission Limit (# HAP loss/1,000 ft^2 of leather processed)
Upholstery Leather (≥4 grams add-on/ft^2)	2.6
Upholstery Leather (<4 grams add-on/ft^2)	6.8
Water-resistant (≥5,000 Maeser Flexes)/Specialty Leather	5.6
Nonwater-resistant Leather (<5,000 Maeser Flexes)	3.7

C. Prime shall submit a one time Initial Notification by June 27, 2002 which includes the following: [Reference 40 CFR 63.5415]
   1. Name and address of the owner and operator of the facility;
   2. Physical address of the operation;
   3. Identification of relevant standard, such as the Leather Finishing Operations NESHAP, and compliance date; and
   4. A brief description of the source including types of leather product process operations and nominal operating capacity.

D. Prime shall develop and implement the following plan, or other acceptable plan allowed by the rule, for demonstrating compliance including: [Reference 40 CFR 63.5325]
   1. Name and address of the owner and operator of the facility;
   2. Physical address of the operation;
   3. Provide a detailed description of all methods of measurement the source will use to determine the finish usage. HAP content of each finish, quantity of leather processed, and leather product process operation type;
   4. Specify when each measurement will be made;
   5. Provide examples of each calculation which will be used to determine the compliance status; and
   6. Provide example logs of how data will be recorded.
   7. Provide a QA/QC plan to ensure that the data continue to meet compliance demonstration needs.

E. Prime shall submit the first annual compliance status certification, or other acceptable status certification allowed by the rule, 12 months after submission of the Notification of Compliance Status which will include [Reference 40 CFR 63.5420]:
   1. Name and address of the owner and operator of the facility;

2. Physical address of the operation;
3. Each type of leather product process operation performed during the 12-month period covered by the report;
4. Each HAP identified in finishes applied during the 12-month period covered by the report; and
5. A compliance status certification indicating whether the source complied with all the requirements of Condition (30) of this license throughout the 12-month period covered by the report. This certification shall include:

a. Compliance that the procedures described in the plan for demonstrating compliance are being used;
b. The compliance ratio value (as determined under 40 CFR 63.5330) was determined to be less than or equal to 1.00, or the value was determined to be greater than 1.00.

F. Prime shall submit a Deviation Notification Report for each compliance determination made in which the compliance ratio exceeded 1.00, as determined under 40 CFR 63.5330. This Deviation Notification Report must be submitted by 15 days of the following month in which the deviation was determined. The Deviation Notification Report must include:
   1. Name and address of the owner and operator of the facility;
   2. Physical address of the operation;
   3. Each type of leather product process operation performed during the 12-month period covered by the report; and
   4. The compliance ratio comprising the deviation.

G. Prime shall record the pounds of each type of finish applied for each leather product process operation and the mass fraction of HAP in each applied finish, or other acceptable methods allowed by the rule. The log must contain: [Reference 40 CFR 63.5335(b)]
   1. Finish type;
   2. Pounds (or density and volume) of each finish applied to the leather;
   3. Mass fraction of HAP in each applied finish;
   4. Date of the recorded entry;
   5. Time of the recorded entry;
   6. Name of the person recording the entry; and
   7. Product process operation type.

H. Prime shall maintain a monthly log for each leather product process operation, or other acceptable methods allowed by the rule, including: [Reference 40 CFR 63.5430(f)]

1. Date for each leather product operation

2. Total surface area of leather processed for each leather product process operation.

I. Prime shall determine actual HAP loss. The entire HAP content of the finishes are assumed to be released to the environment. Multiply the pounds of each recorded finish usage by the corresponding mass fraction of HAP in the finish. The sum of the pounds of HAP loss from all finish applications recorded during the previous month is the total monthly pounds of HAP loss. [Reference 40 CFR 63.5335]

J. Prime shall determine allowable HAP loss by the 15th of each month for the previous month [Reference 40 CFR 63.5340]
   1. Select the appropriate HAP emission limit from the table in Condition 3 (B) of this amendment.
   2. Determine the annual total of leather processed in 1,000's of square feet for each product process operation in accordance with 40 CFR 63.5400:
   3. Multiply the annual total of leather processed in each process by the corresponding HAP emission limit to determine the allowable HAP loss in pounds for the corresponding process.
   4. Sum the pounds of HAP loss from all leather product process operation performed in the previous 12-months.
   5. The resulting HAP loss is used to calculate the compliance ratio

K. Prime shall determine the compliance ratio for each month. [Reference 40 CFR 63.5330]

   The compliance ratio is the Actual HAP loss / Allowable HAP loss where the Actual HAP loss is determined in accordance with 40 CFR 63.5335 and the Allowable HAP loss is determined in accordance with 40 CFR 63.5340.

L. Prime shall maintain the compliance ratio at or below 1.00. [Reference 40 CFR 63.5330]
   1. If the compliance ratio is less than or equal to 1.00, the source is in compliance.
   2. If the compliance ratio is greater than 1.00 the source is deviating from compliance.

M. Prime shall maintain records required to demonstrate compliance. [Reference 40 CFR 63.5430]

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(4) This amendment shall expire concurrently with air emission license A-376-70-A-I.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2002.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES
Date of initial receipt of application: May 16, 2002
Date of application acceptance: May 16, 2002

Date filed with the Board of Environmental Protection _____

This Order prepared by Edwin Cousins, Bureau of Air Quality.